



Published in final edited form as:

*School Nurse News*. 2015 September ; 32(4): 10–17.

## It's Back to School Time!: The Role of School Nurses in Preparing a Medically-Safe and Supportive Environment for Students with Diabetes

MICHELLE OWENS-GARY, PHD, MA and LAURA SHEA, RN, MA

Dear Diary:

This summer was hard. I didn't know what was going on with me. I started feeling different—not like myself at all. My vision was blurry; I was thirsty all the time, and I was tired a lot too. I had to go to the bathroom a lot, and I also lost a huge amount of weight. At first I was excited about the weight loss, but then my mom started to get worried. She made an appointment for me to see the doctor. That's when my life changed forever! The doctor told me that I have diabetes! I freaked out and didn't know what to do. Fast-forward, it's just a few days before school starts, and I'm going to the new school. I still don't know what to do. I worry about... Will I be able to take care of myself at school so that I can be like the other students? Who will be there to help me if I have an emergency? There is so much I have to think about with diabetes every day! I'm just hoping that the school year starts off on a good note.

Until next time.

Signed,

~Trish

8/26/2015

### RESOURCES

Diabetes resources for Schools and Youth

U.S. Department of Health and Human Services National Diabetes Education Program

<http://YourDiabetesInfo.org/Schools>

Helping the Student with Diabetes Succeed: A Guide for School Personnel

U.S. Department of Health and Human Services National Diabetes Education Program

<http://YourDiabetesInfo.org/SchoolGuide>

Managing Diabetes at School

Centers for Disease Control and Prevention

<http://www.cdc.gov/Features/DiabetesInSchool/>

Safe at School

American Diabetes Association

<http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/>

Back to School Tips

American Diabetes Association

<http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/special-considerations/back-to-school-tips.html>

**DISCLAIMER:** The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

## **Back to School: Preparing a Safe and Supportive Environment for Students with Diabetes**

As students prepare for the start of a new school year, there is a lot of planning that must be done. Students think about courses they have to take, extracurricular activities they want to join, and school supplies they need to buy. Careful coordination and planning with the school nurse, students with diabetes, parents/guardians, and school administrators, can help keep students medically safe in the event of a diabetes-related emergency and provide an environment where students with diabetes can manage their condition effectively.

Diabetes is a disease that does not take time off; it must be managed 24 hours a day, 7 days a week in school, at home, and every-where in between.

### **What is Diabetes?**

Diabetes is a complex disease that can occur at any age. Type 1 diabetes develops when the body's immune system destroys beta cells produced by the pancreas. These are the only cells in the body that make the hormone insulin, which regulates blood glucose. To survive, people with type 1 diabetes must administer insulin via injection or pump. Type 2 diabetes usually develops when cells, primarily within the muscles, liver, and fat tissue, do not use insulin properly. As the need for insulin rises, the pancreas, over time, loses its ability to produce adequate amounts of the hormone (Centers for Disease Control and Prevention [CDC], 2014). In 2012, about 208,000 people younger than 20 years in the United States had diagnosed diabetes (type 1 and type 2) (CDC, 2014).

### **School Nurses and School Personnel: Helping Students with Diabetes in the School Setting**

To maintain glycemic control and to reduce the risk for low (hypoglycemia) or high (hyperglycemia) blood glucose, a student must regularly monitor blood glucose levels, make healthy food choices and monitor food intake, engage in physical activity, take prescribed medications, and, if necessary, inject insulin or use an insulin pump (American Diabetes Association, 2012). Prolonged blood glucose extremes—where hypoglycemia or hyperglycemia occur for extended periods of time—can cause toxic conditions that may result in a diabetic coma and even death. School nurses and other school personnel (e.g., teachers, coaches, bus drivers, security guards, counselors, and school administrators) can play a vital role in keeping students with diabetes medically safe and in facilitating diabetes care in the school setting. Four major actions that school personnel can take to ensure they effectively support students are 1) learning the federal and state laws that protect students with diabetes, 2) receiving the appropriate training needed to assist students with diabetes management and emergencies, 3) working closely with the parents/guardians of students with diabetes to develop an individualized Diabetes Medical Management Plan, and 4) addressing emotional health issues that may arise and making the necessary referrals for additional support or counseling, if needed.

## Federal and State Laws for the Protection of Children with Diabetes

Federal and state laws protect children with diabetes and their families from discrimination in the school setting. These laws specify that schools have a responsibility to help children with diabetes to manage their condition, and that schools cannot discriminate against children with disabilities. Additionally, the laws state that children with diabetes have the right to engage in the same school activities as those without diabetes (American Diabetes Association [ADA], 2015a,b,c). School nurses are encouraged to know these laws to ensure that they are in compliance as they provide care for students. This paper will highlight federal laws; given that state laws about schools and diabetes care vary, school nurses and other school personnel should also review the laws in their state. For more information about state laws and diabetes, please visit: <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/state-laws-and-policies.html>.

Federal and state laws exist to protect children with diabetes and their families from discrimination in the school setting.

Children with diabetes are protected under four federal laws: 1) Section 504 of the Rehabilitation Act of 1973, 2) the Americans with Disabilities Act, 3) the Individuals with Disabilities Education Act, and 4) the Family Educational Rights and Privacy Act.

### Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act

Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA) prohibit discrimination against individuals on the basis of disability, including diabetes (ADA, 2015a, b; U.S. Department of Health and Human Services, 2010). Section 504 applies to all public schools and to private schools that receive federal financial assistance, and the ADA prohibits discrimination whether or not entities receive federal financial assistance. Under Section 504, schools are required to determine if a student has a disability and whether individualized services are needed. The law states that, under Section 504 and the ADA, students with disabilities must have equal opportunity to participate in all school activities that are academic, non-academic, or extracurricular (ADA, 2015b; US Department of Health and Human Services, 2010).

### Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA) provides federal funds to educational agencies for children with disabilities so that they can receive public education along with all other students (ADA, 2015c; US Department of Health and Human Services, 2010). To qualify for services under IDEA, an evaluation by an education specialist (e.g., school psychologist, social worker) must demonstrate that a student needs special education or other services. For example, an evaluation might show that a child's recurring fluctuations in blood glucose levels adversely affect his or her ability to pay attention in a classroom setting, affecting educational performance (ADA, 2015c; US Department of Health and Human Services, 2010). Under this law, an Individualized Education Plan is typically developed to identify what the school will do to meet the individual needs of a specific child (ADA, 2015c).

...an evaluation might show that a child's recurring fluctuations in blood glucose levels adversely affect his or her ability to pay attention in a classroom setting, affecting educational performance.

### **Family Educational Rights and Privacy Act**

The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of students' education records and prohibits the release of information from those records, unless written permission is obtained from the student's parent/guardian or the eligible student (a student who is 18 years of age or older or a student who attends a post-secondary institution at any age). However, there are a few exceptions which allow the school to disclose educational information without consent from the parent/guardian or the eligible student (e.g., if the student is transferring to another school, for evaluation purposes, to comply with a judicial order, or in the event of an emergency) [US Department of Education, 2015]. Another exception permits schools to disclose personal information in the student's educational record without prior consent to school officials (including teachers and other school personnel) who have a legitimate educational interest in the personal information and perform an institutional service for the school (US Department of Health and Human Services, 2010).

### **Training School Nurses and Other School Personnel in Diabetes Management**



School nurses and other school personnel may also want to consider receiving training from a diabetes-trained healthcare professional (i.e., certified diabetes educator) to be prepared to assist students with diabetes in managing their disease and to intervene in the event of an emergency. Three levels of training are essential (ADA, 2012; U.S. Department of Health and Human Services, 2010):

**Level 1**—Training that provides an overview on diabetes, describes ways to recognize signs and symptoms of hypoglycemia and hyperglycemia, and identifies who needs to be

contacted if a student with diabetes experiences an emergency. This training is for all school personnel.

**Level 2**—In addition to level 1, training to provide an overview of the legal rights of students with diabetes, to help school personnel learn how to operate devices used by students with diabetes, to help staff recognize and treat diabetes-related emergencies and to learn about required accommodations available for students with diabetes. This training is for school staff who have direct responsibility for students with diabetes (e.g., teachers, lunchroom staff, coaches, security guards, bus drivers).

**Level 3**—In addition to levels 1 and 2, the school nurse or a certified diabetes educator can provide in-depth training for one or more school staff members who will be designated as trained diabetes personnel. This training helps to ensure that an alternate staff member is prepared to perform diabetes care tasks (e.g., blood glucose monitoring, administering insulin) in the event that the school nurse is not available to assist with routine care or during an emergency.

To learn more about diabetes management training programs and resources, please visit: [YourDiabetesInfo.org/SchoolGuide](http://YourDiabetesInfo.org/SchoolGuide).

## **Working with Parents/Guardians and the Health Care Team to Support Students with Diabetes**

For students with diabetes, the school nurse is encouraged to work with the parents/guardians and the student's personal diabetes healthcare team to develop a Diabetes Medical Management Plan and an Individualized Health Care Plan (CDC, 2015; U.S. Department of Health and Human Services, 2010). The Diabetes Medical Management Plan is a document that provides the medical orders for a specific student with diabetes. It helps students and school personnel manage diabetes in the school setting and during school-related events (e.g., field trips, sport events). It provides detailed information about:

- the date of diagnosis,
- the student's current health status,
- a list of medications to be given at school (e.g., insulin, glucagon),
- how and when blood glucose should be tested,
- the student's symptoms of hypoglycemia/hyperglycemia,
- how school personnel should respond to diabetes emergencies,
- the ways in which to administer insulin therapy, if applicable,
- meal and snack plans,
- the use of an insulin pump and the student's self-care skills in using a pump, and
- the student's self-care skills for physical activity involvement and meal planning.

Diabetes care plans outline the steps to be taken by school officials so that they can be prepared to assist students with diabetes in effectively managing their disease and to respond to any emergency situations that may arise.

The Individualized Health Care Plan, which is completed by the school nurse, identifies how the medical orders in the Diabetes Medical Management Plan will be implemented in the school setting. The Individualized Health Care Plan typically includes information about:

- the student's routine for blood glucose monitoring (e.g., where to check blood glucose, when it will be checked, and the student's self-care skills),
- the steps the student will take to manage hyperglycemia and hypoglycemia, and
- the ways in which the school nurse, in collaboration with parents/guardians, can provide a supportive environment to help the student cope with diabetes in the school setting.

To see examples of a Diabetes Medical Management Plan and an Individualized Health Care Plan, please visit: <http://www.ndep.nih.gov/media/sample-diabetes-medical-management-plan-508.pdf> and <http://www.ndep.nih.gov/media/sample-template-individualized-health-care-plan-508.pdf>.

In addition to developing the above-mentioned healthcare plans, the school nurse can also help the student with diabetes by creating an emergency care plan for treating hyperglycemia and hypoglycemia and identifying the trained school personnel who can assist in the event of an emergency. These plans are usually made available to all school personnel who have responsibility for students with diabetes, including personnel in the school setting and those with student contact during extracurricular activities (U.S. Department of Health and Human Services, 2010). Federal laws, such as FERPA, permit schools to disclose personal information from education records to appropriate parties, if the knowledge of such information is needed in the event of an emergency and to protect the health or safety of the student with diabetes (U.S. Department of Health and Human Services, 2010).

Diabetes can be an emotionally challenging illness for students. Resources are available for schools and youth to address emotional and social issues.

## Addressing Emotional Health Issues and Diabetes

Having diabetes can be emotionally difficult for students (Owens-Gary, Shea, & Lewis, 2010). Developmentally, children are at a stage in life where they want to fit in and be like their peers. Having a disease like diabetes can make them stand out and feel different, especially if their peers do not understand what diabetes is and the steps that children with diabetes must take to live a healthy life. The school nurse, along with helping students with diabetes manage their illness, can also provide general education for all students to learn about this condition and what must be done on a daily basis for a student with diabetes to keep his or her blood glucose levels under control.

If caring for diabetes becomes emotionally overwhelming, parent/guardian notification and involvement may be needed to refer the student for counseling and support. School nurses

may struggle with knowing when it is appropriate to notify parents/guardians about a student who is having an emotionally difficult time with their diabetes. This can be particularly challenging because school nurses may feel obligated to keep the student's communications with them confidential. To address this issue, schools may consider developing policies and protocols to determine when confidentiality may be broken, so that the student can receive the appropriate medical care needed.

## Resources for School Nurses to Help Students with Diabetes Succeed

The National Diabetes Education Program (NDEP), jointly sponsored by the Centers for Disease Control and Prevention and the National Institutes of Health, has developed resources for schools and youth that address diabetes management, including a tip sheet for teens that focuses on emotional health and diabetes titled Tips for Teens with Diabetes: Dealing With the Ups and Downs of Diabetes. NDEP has also developed a guide entitled, helping the Student with Diabetes Succeed: A Guide for School Personnel, which includes sections on effective diabetes management, developing and implementing school health plans, and dealing with emotional and social issues. To learn more about these and other resources on diabetes prevention and management, visit the NDEP website at [www.YourDiabetesInfo.org](http://www.YourDiabetesInfo.org) or call 1-888-693-NDEP.

## Conclusion

Having diabetes can be a daunting experience for students. Children and young adults have to manage their disease and urgent situations that may arise in all settings—where they live, learn, and play. School nurses, other trained school personnel, parents/guardians, and the healthcare team are all essential contributors to help schools provide students with a supportive environment to take care of themselves and their diabetes. With advance planning and established healthcare plans, students with diabetes, like Trish, can feel safe in the school setting.

## REFERENCES

1. American Diabetes Association. Diabetes care in the school and daycare setting. *Diabetes Care*. 2012; 35(1):S76–S80. [PubMed: 22187474]
2. American Diabetes Association. Section 504 of the Rehabilitation Act of 1973. 2015a. Retrieved from: <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/section-504.html>
3. American Diabetes Association. Americans with Disabilities Act. 2015b. Retrieved from: <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/americans-with-disabilities.html>
4. American Diabetes Association. Individuals with Disabilities Education Act. 2015c. Retrieved from: <http://www.diabetes.org/living-with-diabetes/parents-and-kids/diabetes-care-at-school/legal-protections/individuals-with-disabilities.html>
5. Centers for Disease Control and Prevention. Managing diabetes at school. 2015. Retrieved from: <http://www.cdc.gov/Features/DiabetesInSchool/>
6. Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States. U.S. Department of Health and Human Services; Atlanta, GA: 2014. 2014.

7. Owens-Gary MD, Shea L, Lewis SR. Helping students cope with diabetes: The role of the school nurse. *School Nurse News*. 2010; 27:29–30. [PubMed: 20945679]
8. U.S. Department of Health and Human Services. Helping the Student with Diabetes Succeed: A Guide for School Personnel. U.S. Department of Health and Human Services; Washington, DC: 2010.
9. U.S. Department of Education. Family Educational Rights and Privacy Act (FERPA). 2015. Retrieved from: <http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>